

ABSTRACT

A power factor improving circuit comprises a boost reactor (L1) which inputs a rectified voltage obtained by rectifying an AC power supply voltage of an AC power supply (V_{ac1}) by a rectifier circuit (B1); a main switch (Q1) which inputs the rectified voltage through the boost reactor (L1) and is turned on/off; a converting section (D1, C1) which converts a voltage, which is obtained when the main switch (Q1) is turned on/off, into a DC output voltage; and a control section (10) which controls turn-on/off of the main switch (Q1) to shape an AC power supply current to a sine wave form, controls an output voltage of the converting section (D1, C1) to a predetermined voltage, and controls a switching frequency of the main switch (Q1) according to a value of current flowing into the AC power supply (V_{ac1}), or that of current flowing into the rectifier (B1), or that of current flowing into the main switch (Q1).